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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/925,868 09/09/97 ISBARA

M INPA: 035

EXAMINER

MM22/0215

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ART UNIT

PAPER NUMBER

2816
DATE MAILED:

02/15/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/925,868

Applicant

ISBARA

Examiner

Kenneth B. Wells

Group Art Unit

2816

☒ Responsive to communication(s) filed on 1-4-00

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-20 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-20 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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1. The amendment filed on 1/4/00 has been received and entered in the case.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Fox, Nelson and GB 1,2287,021.

As to claim 1, note that each of these references discloses an RC attenuator, which is essentially all that applicant is reciting in this claim. The differences are that applicant uses a continuously-on biased FET instead of the discrete resistor shown by each of the references. However, the replacement of a discrete resistor with a continuously-on biased FET is notoriously well-known in the art (official notice is taken) and there is obvious motivation to make such a replacement, i.e., to save chip real estate, since discrete resistors take up more space than integrated FETs acting as resistance elements. The resistor recited in the claim also fails to distinguish patentably over these references because it is also old and well-known in the art to add such a series resistor between the gate bias voltage and the gate of the FET for the purpose of

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controlling the on level of the FET (and thereby controlling the resistance value of the FET), all of which are old and well-known concepts to those having ordinary skill in the art. The new limitations added to the claims, that the input and output signals are binary, does not define patentably over the applied prior art because, as applicant is well aware, the type of signals that are received and output by a certain device are not part of the device (i.e., they are not structural features of the invention) and thus are merely intended use limitations which cannot distinguish a claimed structure from a prior art structure which fully meets the claim under 35 USC 102 or 103. Moreover, note that the Nelson reference suggests using binary input and output signals (see Fig. 2 of that reference). The amendments to the independent claims to recite the levels of the input or output signals cannot serve to distinguish over the prior art since these signals are not part of the invention, i.e., they are merely intended use limitations.

As to the remaining claims which recite the inverter 26 and pull-up FET 28, the limitations recited therein are also considered to be well-within the ordinary skill level and are thus obvious as well, for the reasons noted in the previous office actions.

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4. Applicant's arguments filed on 1/4/00 have been fully considered but they are not persuasive.

Applicant argues that a recitation of what the terminals of the inventive circuit is connected to represents a structural feature of the inventive circuit. The examiner disagrees with this statement based on the simple fact that it does not matter what an inventive circuit is connected to because what it is connected to is not part of the inventive circuit. In other words, since that element (or elements) is not part of the inventive structure, it (or they) clearly cannot serve to distinguish over the prior art. Note that such connection(s) of the inventive circuit are merely intended use, as previously pointed out and that they do not further limit the claim.

The argument that a resistor and a transistor are not structurally equivalent is also not persuasive since the examiner agrees with this statement. On the other hand, a transistor with its control input biased at a fixed reference potential so that it operates in the active (triode) region is a structure which is equivalent to a resistor (since their operation is essentially the same), i.e., the transistor acts as a resistor.

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5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

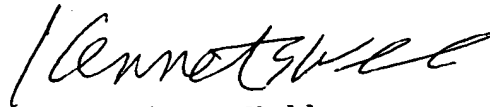
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth B. Wells whose telephone number is (703) 308-4809. The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan, can

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be reached on (703) 308-4876. The fax phone number for this Group is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



Kenneth B. Wells
Primary Examiner
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February 14, 2000